

Risky Warninda. NPM 220331100034. Pengembangan Produk Pangan Berbahan Jagung Madura: Karakteristik Fisiokimia Dan Analisis Kelayakan Agroindustri. Dibawah bimbingan **Dr. M. Fuad Fauzul Mu'tamar, S.TP., M.Si. dan Millatul Ulya, S.TP., M.T.**

ABSTRAK

Jagung lokal Madura memiliki potensi sebagai bahan pangan bergizi, namun pemanfaatannya masih terbatas sebagai makanan pokok tradisional dan banyak dijadikan pakan ternak. Produk bubur MPASI instan yang beredar di pasaran masih memerlukan pengembangan melalui pemanfaatan bahan pangan lokal yang beragam dan bernilai gizi tinggi. Penelitian ini bertujuan untuk menganalisis karakteristik fisik dan kimia bubur MP-ASI instan berbahan jagung lokal Madura, pisang kepok, kacang tunggak, kacang bambara, menentukan formulasi terbaik, serta menghitung Harga Pokok Produksi (HPP) dan harga jual. Rancangan percobaan yang digunakan adalah Rancangan Acak Lengkap (RAL) dengan 6 formulasi bubur dan 3 kali pengulangan. Penentuan formulasi terbaik dilakukan menggunakan metode *Composite Performance Index* (CPI). Hasil penelitian menunjukkan bahwa seluruh formulasi memenuhi persyaratan mutu SNI 01-7111.1-2005 dengan kadar air 1,31–3,41%, protein 8,07–10,12%, viskositas 10.107,99–14.916,33 mPa.s, serta warna *yellowness* 37,90–41,03%. Berdasarkan metode CPI, formulasi F1 ditetapkan sebagai formulasi terbaik dengan komposisi tepung jagung lokal Madura 36%, tepung pisang kepok 20%, tepung kacang tunggak 8%, tepung kacang bambara 8%, serta nilai CPI 102,09. Formulasi F1 menghasilkan kandungan energi sebesar 447,51 kkal/100 g, protein 10,12%, lemak 12,87%, karbohidrat 72,8%, dan serat kasar 4,5%. Produk juga memberikan kontribusi terhadap AKG bayi usia 6–11 bulan sebesar 22,37% energi, 26,98% protein, 14,70% lemak, dan 27,73% karbohidrat per takaran saji 40 g. Hasil analisis biaya menunjukkan HPP sebesar Rp15.655,88 per kemasan 120 g dengan harga jual Rp19.000 per kemasan dan memperoleh keuntungan sebesar 20%.

Kata kunci : MP-ASI instan, Jagung Lokal Madura, Karakteristik Fisiokimia

Risky Warninda. NPM 220331100034. *Development Of Food Products Made From Madura Corn: Physicochemical Characteristics and Agroindustrial Feasibility Analysis.* Under the guidance of **Dr. M. Fuad Fauzul Mu'tamar, S.TP., M.Si. and Millatul Ulya, S.TP., M.T.**

ABSTRACT

Local Madura corn has potential as a nutritious food source, but its use is still limited to traditional staple foods and is often used as animal feed. The instant baby food porridge products currently available on the market still require further development through the use of diverse local food ingredients with high nutritional value. This study aims to analyze the physical and chemical characteristics of instant MPASI porridge made from local Madura corn, kepok bananas, tunggak beans, and bambara beans; determine the optimal formulation; and calculate the Cost of Goods Sold (COGS) and selling price. The experimental design used was a completely randomized design (CRD) with 6 porridge formulations and 3 replicates. The best formulation was determined using the Composite Performance Index (CPI) method. The results of the study show that all formulations meet the quality requirements of SNI 01-7111.1-2005, with moisture content ranging from 1.31% to 3.41%, protein 8.07–10.12%, viscosity 10,107.99–14,916.33 mPa·s, and yellowness 37.90–41.03%. Based on the CPI method, formulation F1 was determined to be the best formulation with a composition of 36% local Madura corn flour, 20% kepok banana flour, 8% tunggak bean flour, 8% bambara bean flour, and a CPI value of 102.09. Formulation F1 yields an energy content of 447.51 kcal/100 g, protein 10.12%, fat 12.87%, carbohydrates 72.8%, and crude fiber 4.5%. The product also contributes 22.37% of energy, 26.98% of protein, 14.70% of fat, and 27.73% of carbohydrates toward the Recommended Dietary Allowances (RDAs) for infants aged 6–11 months per 40 g serving. Cost analysis results show a cost of goods sold (COGS) of Rp15,655.88 per 120 g package with a selling price of Rp19,000 per package, yielding a profit of 20%.

Keywords: *Instant complementary foods, Local Madura corn, Physicochemical characteristics*